

Medical Surveillance and Occupational Health Plan SOP

Laboratory Name: Amherst Drug Lab

Laboratory Supervisor: Jim Hanchett

Linda Han has requested that the attached SOP be read by everyone in your Lab. Signatures below indicate that each employee has read and had an opportunity to ask questions regarding the implementation of this new SOP, entitled Medical Surveillance and Occupational Health Plan. This SOP was implemented on April 18, 2011

Please note that this document should be returned to Sydney in Room 305, no later than July 30, 2011.

Name	Signature	Date
Jim Hanchett		
Sharon Salem		
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A.	Medical Surveillance and Occupational Health Plan	Page
B.	Table of Contents	1
C.	Introduction	1
D.	Purpose	1
E.	Scope	2
F.	Responsibility	2
G.	Definitions	4
H.	Related Documents	4
I.	Equipment	4
J.	Safety	4
K.	Procedure	5
	1. Pre-placement medical evaluation	5
	2. Use of medical alert cards	5
	3. Occupational health response to workplace incidents	5
	4. MDPH Bureau of Laboratory Sciences occupational health risk assessment team activation	6
	5. Response to potential exposures to biological agents or toxins by risk level	7
	6. Managing symptomatic employees	8
L.	Compliance Monitoring	10
M.	Record Retention	10
N.	References	11
O.	Attachments	11
	1. Medical alert cards	12
	2. Occupational Health Provider Report Form, SA004-01-11	14
	3. Medical Emergency and Workplace Injury section, Emergency Response Guidelines, University of Massachusetts Medical School, Jamaica Plain Campus	15
	4. Questions for assessment of employee exposure risk	17
	5. Symptom Monitoring Log, SA004-02-11	19
	6. High Risk Pathogen Table (symptoms, incubation periods, person-to-person transmissibility)	20
P.	Approval Signatures	22
Q.	Revision History	23

C. INTRODUCTION

The goal of occupational health services in a laboratory setting is to promote a safe and healthy workplace. This is accomplished by limiting opportunities for exposure, promptly detecting and treating exposures, and using information gained from work injuries to further enhance safety precautions. Occupational health and safety in laboratory settings is a responsibility shared by laboratory supervisors and directors, healthcare providers, safety officers, and workplace personnel.

D. PURPOSE

This SOP describes the MDPH Bureau of Laboratory Sciences (BLS) medical surveillance plan and the plan for medical support for occupational exposures and illnesses for persons working in MDPH BLS Laboratories.

E. SCOPE

This document describes response procedures for medical surveillance and response to occupational illnesses and exposures as they relate to the Select Agents and Toxins (SAT) Program Laboratories and all other laboratories of the BLS. This document specifically applies to all BLS personnel at risk for occupational exposure to pathogens or hazardous chemicals with special focus on those personnel working with high-risk

pathogens or toxins. High-risk pathogens or toxins include botulinum neurotoxin producing species of *Clostridium* and botulinum toxin, *Coxiella burnetii* (causative agent of Q fever), eastern equine encephalitis virus (EEEV), *Francisella tularensis* (causative agent of tularemia), *Yersinia pestis* (causative agent of plague), *Bacillus anthracis* (causative agent of anthrax), *Brucella* species (*B. abortus*, *B. melitensis*, *B. suis*), *Burkholderia* species (*B. mallei*, *B. pseudomallei*), smallpox virus, rabies virus, ricin toxin, saxitoxin, and *Mycobacterium tuberculosis* complex. A companion plan for *M. tuberculosis* is described in SOP 100H012, Medical Surveillance for *Mycobacterium tuberculosis*.

F. RESPONSIBILITY

The MDPH BLS is located on the University of Massachusetts Medical School, Jamaica Plain Campus (UMMSJP). The MDPH BLS and UMMSJP officials work in partnership to provide institutional response to laboratory occupational health and safety events (exposures and illnesses), and provide oversight and management of the medical surveillance plan.

1. Director, MDPH Bureau of Laboratory Sciences (BLS Director)

Responsible for assuring that a program exists which reduces occupational health risks and addresses occupational health accidents and exposures associated with work at BLS; ensures that the medical surveillance plan is reviewed annually and revised as necessary. In the event of a significant infectious exposure to BLS personnel, the BLS Director activates the Occupational Health Risk Assessment (OHRA) Team, and coordinates the efforts of multiple agencies in addressing the occupational health needs of affected and potentially affected employees.

2. MDPH BLS SAT Program Responsible Official (RO)

Reports to BLS Director; responsible for ensuring BLS compliance with CDC SAT Program requirements, and for ensuring development and implementation of SAT safety and emergency response plans; notifies CDC of any release of an SAT and of any potential exposure to an SAT.

3. UMMS Environmental Health and Safety Officer (UMMS-EHS)

Provides consultant services to the MDPH BLS regarding environmental health and safety subject matter; responsible for training all UMMS and MDPH employees in the UMMSJP Emergency Response and Contingency Plan; provides technical expertise in developing appropriate health and safety related procedures; participates in drills to exercise plans.

4. MDPH Bureau of Infectious Disease Epidemiologist/Infectious Disease Specialist (BID-ID)

A member of the OHRA Team when the occupational exposure is due to an infectious agent or toxin; serves as a clinical infectious disease subject matter expert, and a communicable disease control and prevention subject matter expert.

5. MDPH BLS SAT Program Principal Investigators (PI)

Ensure compliance with all SAT regulatory requirements for their laboratory; ensure that all personnel accessing their SAT-registered laboratory are appropriately trained and follow all relevant SOP for working with SAT, including biosafety and incident response; report releases and potential exposures to the RO; notify the Laboratory Division Director and BLS Director of all safety and exposure events. Participates on OHRA Team when the incident or exposure involves one of the PI's employees or SAT laboratory; serves on the OHRA Team as the laboratory methods subject matter expert.

6. MDPH BLS Laboratory Division Directors (LABDIVDIR)

Ensure compliance with all regulatory requirements for their Division's laboratories; ensure that all personnel accessing the Division's laboratories are appropriately trained and follow all relevant SOPs for working with biological and chemical agents, including biosafety and incident response; report releases and potential exposures to the BLS Director; notify the BLS Director of all safety and exposure events; participates on OHRA Team when the incident or exposure involves employees of the LABDIVDIR or Division laboratory; serves on the OHRA Team as the laboratory methods subject matter expert; responsible for oversight and monitoring the activities of the laboratory supervisors for Division non-SAT; responsible for technical review and approval of activities and policies relevant to the division.

7. MDPH BLS Laboratory Supervisors (LABSUPV)

For SAT and non-SAT laboratories, identify potential worksite health hazards and implement appropriate safety practices; ensure that laboratory personnel receive appropriate training regarding their duties, the necessary precautions to prevent exposures, and exposure evaluation procedures; provide laboratory personnel and particularly women of child-bearing age with information regarding immune competence and conditions that may predispose them to infection; encourage individuals having these conditions to self-identify to their healthcare provider or to a BLS occupational health provider for appropriate counseling and guidance; advise all persons entering the laboratory of the potential hazards and ensure that specific entry/exit requirements are met; ensure compliance with all regulatory requirements for their laboratories; ensure that all personnel accessing their laboratory are appropriately trained and follow all relevant SOPs for working with biological and chemical agents, including biosafety and incident response; report SAT releases and potential exposures to the BLS Director; notify the BLS Director of all safety and exposure events; participates on OHRA Team when the incident or exposure involves employees of their laboratory; serves on the OHRA Team as their laboratory's methods subject matter expert.

8. Occupational and Environmental Medicine Provider (OEMP)

A member of the OHRA Team; responsible for interviewing affected employees regarding medical history and symptoms, and for evaluating affected employees to identify baseline medical conditions that may impact exposure response. Evaluation may include physical exam and collection of samples for laboratory testing as needed. The OEM provider will disclose to BLS Director and/or the RO only those diagnoses that are relevant to the occupational health response. The OEMP is a MDPH contractor who provides occupational health services.

9. MDPH BLS SAT Program Alternate Responsible Officials (ARO)

Reports to RO acts on behalf of the RO as directed to carry out the RO responsibilities listed above.

10. MDPH BLS Immunizations Program Manager

Maintains employee records for vaccinations, antibody titers, tuberculin skin testing, and other related employee occupational health services.

11. Personnel occupying, working in, or visiting MDPH BLS spaces

Responsible for following all safety procedures adopted by the facility; promptly report any significant safety incident, exposure or release; report to supervisor any unexplained illnesses or symptoms that could related to laboratory exposures; report to supervisor any significant unexplained symptoms that could be related to workplace-associated exposures.

12. BLS Occupational Health Risk Assessment (OHRA) Team

The team will include the BLS director; RO; UMMS-EHS; OEMP; and BID-ID (for infectious disease exposures); the applicable PI, LABDIVDIR, or laboratory supervisor. The OHRA Team may also consult external sources as needed, such as other infectious disease specialists, CDC subject matter experts, and the CDC Select Agents and Toxins (SAT) Program. The OHRA Team is the UMMSJP Campus response team established to:

- a. Review and assess individual and public health risk associated with reported occupational exposures, releases and symptoms.
- b. Determine the appropriate short-term and long-term responses.
- c. Determine whether employee symptoms may be attributable to a laboratory exposure.

G. DEFINITIONS

Occupational exposure	Any event which results in any person not being appropriately protected in the presence of an agent or toxin. This may include reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potential infectious materials that may result from the performance of a person's duties. For example, a sharps injury from a needle being used in select agent or toxin work would be considered an occupational exposure.
Release	A discharge of a select agent or toxin outside the primary containment barrier due to a failure in the containment system, an accidental spill, occupational exposure, or a theft. Any incident that results in the activation of a post exposure medical surveillance/prophylaxis protocol should be reported as a release.
Select Agent and Toxin (SAT)	Biological agent or toxin listed in 42 CFR Part 73, 7 CFR Part 331 and 9 CFR Part 121, or the HHS and USDA Select Agents and Toxins List. Investigators who possess or use a select agent must register with and get approval from either the CDC Select Agent Program.

H. RELATED DOCUMENTS

MDPH BLS	SOP 01OH004 Exposure Control Plan And Universal Precautions: Blood Borne Pathogens and BL2 Agents
DPH BLS	SOP 10OH007 Biosafety Plan: Clostridium botulinum and Botulinum Neurotoxins
MDPH BLS	SOP 10OH008 Biosafety Plan: Virus Isolation Laboratory- Select Agents
MDPH BLS	SOP 10OH009 Biosafety Plan: EEE Virus PCR Testing
MDPH BLS	SOP 10OH010 Biosafety Plan: Bioterrorism Response Laboratory
MDPH BLS	SOP 10OH011 Biosafety Plan: LRN Variola-specific PCR testing
MDPH BLS	SOP SA.005 Incident Response Procedures for the Bureau of Laboratory Sciences
MDPH BLS	SOP 10OH012 Medical Surveillance for <i>Mycobacterium tuberculosis</i>
UMMS	Emergency Response and Contingency Plan (and accompanying Emergency Response Guidelines - UMMS JP poster booklets)
Executive Office of Health and Human Services	EOHHS, Human Resources- Workers' Compensation and Employment Safety, Industrial Accident packet: Section I: Industrial Accident Report (Supervisor completes with Employee) Section II: Injured Worker's Guide to Medical Treatment, Concurrent Employment Review Form, Authorization for Release of Medical Records, Physician's Report (Employee and Physician completes)
CDC/NIH	Biosafety in Microbiological and Biomedical Laboratories (BMBL), CDC and NIH, 5 th Edition, 2007
MSDS	Material Safety Data Sheets (MSDS) for specific laboratory related reagents/materials, SAT, and infectious or toxic materials.

I. EQUIPMENT: N/A

J. SAFETY: N/A

K. PROCEDURE

1. Pre-placement Medical Evaluation

- a. Upon hire, new laboratory personnel will receive appropriate training regarding their duties, the necessary precautions to prevent exposures, and exposure evaluation procedures.
- b. They will also receive information regarding immune competence and conditions that may predispose them to infection. New personnel with underlying medical conditions that may predispose them to infection will be encouraged to self-identify to their healthcare provider or to a BLS occupational health provider for appropriate counseling and guidance.
- c. New personnel will be provided medical surveillance and offered appropriate immunizations for agents handled or potentially present in the laboratory.

2. Use of Medical Alert Cards

All employees working in laboratories in which high-risk agents or toxins are used should carry a medical alert card at all times (see Section O, Attachment-1, Medical Alert Cards). Other employees will carry medical alert cards as needed if exposure to a high-risk agent or toxin is suspected or being considered.

3. Occupational Health Response to Workplace Incidents

- a. Report all incidents and accidents to supervisor as soon as possible.
- b. Affected employee (and/or LABSUPV) must complete a EOHHS Human Resources (HR) Workers' Compensation and Employment Safety Industrial Accident packet and submit to HR within 24 hours of the incident.
- c. Accidents involving potential exposure to biological or chemical agents should be documented in the incident/problem log of the laboratory where the event occurred.
- d. For accidents involving potential exposure to biological or chemical agents, the examining healthcare provider should provide the BLS Director with a written opinion (see Section O, Attachment-2 Occupational Health Provider Report Form, SA004-01-11) that includes:
 - 1) Any recommendations for further medical follow-up.
 - 2) Results of the medical examination and any associated tests.
 - 3) Any medical condition that may be revealed in the course of the medical examination which may place the employee at increased risk as a result of exposure to a hazardous chemical or biological agent found in the workplace.
 - 4) A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.
 - 5) The written opinion shall not reveal specific findings of diagnoses unrelated to occupational exposure.
- e. **Medical emergencies or workplace accidents, not associated with exposure to chemical or biological agents** (e.g., fainting episodes, chest pain, slip and fall injuries, etc.): Refer to the Medical Emergency and Workplace Injury section of the Emergency Response Guidelines, UMMS Jamaica Plain (see Section O, Attachment-3). Must complete an EOHHS Human Resources (HR) Industrial Accident document packet and submit to HR within 24 hours of the incident.
- f. **Accidents involving chemical exposure**
Initial assessment by LABSUPV, LABDIVDIR, and UMMS-EHS to evaluate the exposure risk. Consult MSDS as needed. Significant exposures will be reported immediately to the BLS Director. Exposed employees will be referred to a local hospital for further evaluation and management according to the Medical Emergency and Workplace Injury section of the Emergency Response Guidelines, UMMS Jamaica Plain Campus (see Section O, Attachment-3). Must complete a

EOHHS Human Resources (HR) Industrial Accident packet and submit to HR within 24 hours of the incident. The examining healthcare provider should provide the BLS Director with a written opinion (see Section O, Attachment-2 Occupational Health Provider Report Form, SA004-01-11) that includes:

- 1) Any recommendations for further medical follow-up.
- 2) Results of the medical examination and any associated tests.
- 3) Any medical condition that may be revealed in the course of the medical examination which may place the employee at increased risk as a result of exposure to a hazardous chemical or biological agent found in the workplace.
- 4) A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.
- 5) The written opinion shall not reveal specific findings of diagnoses unrelated to occupational exposure.

g. **Accidents involving potential exposure to bloodborne pathogens and other BSL2 agents:**
Refer to MDPH SOPs 10OH001 and 10OH004.

h. **Accidents involving potential exposure to *Mycobacterium tuberculosis***
See SOP 10OH012 Medical Surveillance for *Mycobacterium tuberculosis*. Report any accidents, spills, and exposures, to the LABSUPV and/or LABDIVDIR. If there is an exposure risk, notify the BLS director. If the BLS Director cannot be reached immediately, then consult with the Medical Director of the MDPH TB Control Program regarding further actions.

i. **Accidents involving all other high-risk pathogens or toxins**

- 1) **Initial assessment** by the supervisor and the division director. In the event of an exposure risk, the BLS Director must be notified immediately. If the BLS director cannot be reached immediately, then the LABSUPV or LABDIVDIR should consult with the Bureau of Infectious Disease Epidemiologist/Infectious Disease Specialist regarding further actions and activation of the OHRA Team.
- 2) **If the accident, spill, or exposure involves a SAT, the RO, BLS Director, PI, and SAT LABSUPV, must be notified immediately** (see SOP SA.005 Incident Response Procedures for the Bureau of Laboratory Sciences). See Section K.5 for additional details.

4. **BLS OHRA Team Activation**

- a. The OHRA Team can be activated by the BLS Director (by BID-ID if BLS Director is absent), in the following situations:
 - 1) An event has occurred such that there may be a moderate-to-high risk of exposure of an individual or the environment to the pathogen.
 - 2) An individual working with high-risk pathogens develops symptoms consistent with the agents being handled.
 - 3) When otherwise deemed necessary in instances in which consensus input is desired, e.g., a laboratory worker requests testing for a high risk pathogen, test results of concern are made available, questions regarding further isolation practices or appropriateness of return to work.
 - 4) The OHRA Team will not be activated for evaluation of cases of *Mycobacterium tuberculosis* exposure. *M. tuberculosis* exposure assessments will be performed as described in Section K.3.h).
- b. Assessment of exposure risk and determination of response may include consideration of:
 - 1) The suspected pathogen(s)
 - 2) The nature of the occupational exposure, release, or other event, including whether laboratory procedures were likely to have transmitted infection (e.g., whether the procedure was likely to

- have generated aerosols, whether the incident involved cultured organisms versus primary diagnostic specimens, on solid or liquid media, in small or large amounts, etc)
- 3) Clinical evidence (symptoms, medical history, physical examination, laboratory data, etc) supporting the diagnosis of a work-related illness versus a community-acquired illness
 - 4) Whether the interval between suspected exposure and onset of symptoms is compatible with the pathogen's incubation period
 - 5) The employee's immunization status, if relevant
 - 6) Symptoms and illness among other laboratory workers
 - 7) Circulation in the community of illnesses with febrile, respiratory, gastrointestinal, or other symptoms
- c. As needed, an exposure questionnaire may be used by the OHRA Team to facilitate the assessment (see Section O, Attachment-4).
5. **Response to potential exposures to biological agents or toxins by risk level:** The LABSUPV and LABDIVDIR will perform an initial assessment of the risk of exposure, based on procedural risk and the nature of the breach. Subsequent actions will be based on whether the risk of exposure is considered to be low or high as follows.
- a. **Low-Risk Response Protocol:**
- 1) Example scenario: A biological safety cabinet fails while *M. tuberculosis* is being handled by an employee wearing approved respiratory protection.
 - 2) Required actions:
 - a) The incident will be documented in the laboratory problem log by the employee and LABSUPV.
 - b) The employee may continue to work. No further action is necessary. The OHRA Team need not be convened.
 - c). The employee should be reminded to report any symptoms to the supervisor as per the standard protocol.
- b. **High-Risk Response Protocol:**
- 1) Example scenario: An employee ingests, inhales, or otherwise comes into direct contact with a high-risk agent.
 - 2) Required actions:
 - a) The BLS director will be immediately notified. If the exposure is to a select agent or toxin, the RO must also be immediately notified.
 - b) The OHRA Team will be notified that a potential occupational exposure has occurred.
 - c) If relevant, occupational immunization records will be obtained from the BLS immunizations program manager.
 - d) The OEMP will evaluate the employee (by phone, in-person, or both, as feasible and as needed) to identify baseline medical conditions that may impact exposure response (i.e., conditions that may affect disease onset, duration, severity, or manifestations; conditions that might affect the decision to administer post-exposure prophylaxis).
 - e) The OHRA Team will assess risk of exposure and determine the appropriate response.
 - f) The OEMP will make arrangements for baseline laboratory studies if indicated.
 - g) EOHHS HR Industrial Accident Report packet will be filed by the employee and/or LABSUPV.
 - h) Symptom Monitoring Log (see Section O, Attachment-5 Form SA004-02-11) will be completed by at-risk personnel. The log will be monitored by the LABSUPV with consultation with the BLS Director and OEMP as necessary. At-risk individual(s) may report the onset of new symptoms to their supervisor (during work hours) or directly to the on-call OEMP (as needed after work hours, on weekends, or holidays).
 - i) If symptoms develop within a time period that is compatible with a pathogen's incubation period, laboratory personnel must follow Illness Response Protocol #3.

- j) The incident must be thoroughly investigated and interventions implemented to prevent future exposures. Root causes should be identified. Interventions may include addressing knowledge deficits or workload issues that may have contributed to the exposure. Changes to laboratory procedures may need to be implemented, and then evaluated for efficacy.

6. Managing symptomatic employees

NOTE: This section pertains primarily to symptomatic employees with possible exposures to biological agents and toxins, since significant exposures to chemical agents used at BLS (1) are unlikely to go undetected (and to have onset of symptoms be the first indication of exposure), and (2) are unlikely to produce delayed onset of symptoms.

- a. **Employees must immediately report any significant unexplained symptoms** to their supervisor, particularly if the employee has worked with or around any pathogen within a time period prior to onset of symptoms that is compatible with a pathogen's incubation period. The LABSUPV will immediately notify the BLS Director. If there is suspicion of a significant occupational illness, the OHRA Team will be activated. If the BLS Director cannot be reached immediately, then the supervisor or division director should consult with BID-ID to determine whether the OHRA Team should be activated.
- b. Any employee with an **unexpected absence from the workplace due to illness** for two or more consecutive work days will be contacted by their supervisor to determine whether their illness could potentially be caused by a high-risk pathogen. If the supervisor has reasonable suspicion that the employee's illness may be related to an occupational exposure, then the supervisor will immediately notify the BLS Director, who will determine if the OHRA Team will be activated. If the BLS Director cannot be reached immediately, then the supervisor or division director should consult with BID-ID to determine whether the OHRA Team should be activated.
- c. **Illness Response Protocols (by type of symptoms and level of exposure risk)**
 - 1) **Illness Response Protocol 1: Non-specific symptoms with no exposure risk**
 - a) Example scenario: An employee has non-specific symptoms (e.g. fever for 3 days and muscle aches) consistent with infection with a high-risk pathogen, but has not worked with or around the pathogen within a time period that is compatible with the agent's incubation period.
 - b) Required action:
 - i. If symptoms are so severe that the employee is absent from work, the employee should not return to work, until improvement in symptoms or confirmation by a private physician of a diagnosis other than an occupational infection.
 - ii. The LABSUPV will review laboratory entry logs and testing records to confirm that the employee did not work with or around the suspect pathogen(s) within a time period consistent with the pathogen's incubation period (See Section O, Attachment- 6 High Risk Pathogens Table).
 - iii. The LABSUPV will interview other laboratory workers regarding recent illness to determine whether the laboratory may have been contaminated. If illnesses are identified in other laboratory staff working with high-risk pathogens, the OHRA Team should be consulted to determine further action.
 - iv. The supervisor will communicate with the employee on a daily basis, pending improvement in symptoms or confirmation by a private physician of a diagnosis other than an occupational infection. A Symptom Monitoring Log (see Section O, Attachment-5 Form SA004-02-11) may be used. If symptoms become more specific for an occupational infection, then proceed to Section K.6.c.3), 4), 5).

- 2) **Illness Response Protocol 2: Non-specific symptoms with low exposure risk**
- a) Example scenario: An employee has non-specific symptoms (e.g. fever for 3 days and muscle aches) consistent with infection with a high-risk pathogen, and has worked with or around the pathogen within a time period that is compatible with the agent's incubation period. However, no occupational exposure or release was identified.
 - b) Required action:
 - i. If symptoms are so severe that the employee is absent from work, the employee should not return to work, until pending improvement in symptoms or confirmation by a private physician of a diagnosis other than an occupational infection.
 - ii. The supervisor will notify the BLS Director. In the absence of the BLS Director, the supervisor will consult with BID-ID. If the suspected pathogen/toxin is a SAT, notify the RO immediately.
 - iii. The supervisor will review laboratory entry logs and testing records to determine the last day the employee may have worked with or around the suspect pathogen(s), to confirm that onset of symptoms occurred during a time period consistent with the pathogen's incubation period.
 - iv. The supervisor will interview other laboratory workers regarding recent illness to determine whether the laboratory may have been contaminated. If illnesses are identified in other laboratory staff working with high-risk pathogens, the OHRA Team should be consulted to determine further action.
 - v. The LABSUPV will communicate with the employee and the BLS Director on a daily basis, pending improvement in symptoms or confirmation by a private physician of a diagnosis other than an occupational infection. Use of a Symptoms Monitoring Log (see Section O, Attachment-5 Form SA004-02-11) may be helpful. If symptoms become more specific for an occupational infection, then proceed to Section K.6.c.4).
- 3) **Illness Response Protocol 3: Any symptoms consistent with work-associated disease, with moderate-to-high exposure risk**
- a) Example scenario: An employee has any symptoms (even non-specific symptoms such as fever for 3 days and muscle aches) consistent with infection with a high-risk pathogen, and now recalls a lab accident that may been associated with an exposure.
 - b) Required action:
 - i. The supervisor will notify the BLS Director immediately. If the BLS Director is not available, the supervisor will notify BID-ID. The OHRA Team will be consulted and the employee will be referred to the OEMP for further medical evaluation. If inpatient treatment is needed, a physician OHRA Team member will communicate directly with the physician managing the employee's care. If the suspected pathogen/toxin is a SAT, notify the RO immediately.
 - ii. If the pathogen is known to be transmitted from person to person, employee transport to any healthcare facility for testing or medical evaluation should be arranged with input from OEMP such that the employee does not use public transportation or otherwise place others at risk.
 - iii. An EOHHS HR Industrial Accident Report packet will be filed by the employee and/or LABSUPV.
 - iv. All other employees working in the same laboratory will:
 - aa) Be assessed by the OHRA Team, with assistance as needed from BID epidemiologists, for symptoms consistent with infection with the pathogen.
 - bb) Be assessed by the OHRA Team to determine need for post-exposure prophylaxis or baseline serum testing.
 - cc) Complete Symptoms Monitoring Log (see Section O, Attachment-5 Form SA004-02-11).

- v. If the infection is known to be transmissible from person-to-person, the OHRA Team will lead an effort to identify other at-risk personnel who do not work in the same laboratory.
- 4) **Illness Response Protocol 4: Significant symptoms highly characteristic of workplace-associated disease, with low exposure risk**
 - a) Example scenario: An employee develops fever and symptoms of encephalitis. She has processed samples in the laboratory for eastern equine encephalitis virus testing for the last 2 months, during which time no occupational exposure or release was identified.
 - b) Required action: same as Illness Response Protocol 5.
- 5) **Illness Response Protocol 5: Significant symptoms highly characteristic of workplace-associated disease, with no exposure risk**
 - a) Example scenario: An employee develops fever and encephalitis. He works with the informatics group and has never entered any of the laboratory spaces.
 - b) Required action:
 - i. The LABSUPV in which the pathogen is handled will confirm that the employee has no exposure risk.
 - ii. The employee's supervisor will confirm that the employee has had no potential exposure in other building settings, such as accidents that may have occurred during specimen receiving, hazardous waste removal, etc.
 - iii. The employee's supervisor will notify the BLS Director immediately. If the suspected pathogen/toxin is a SAT, notify the RO immediately.
 - iv. The LABDIVDIR will interview other laboratory workers regarding recent illness to determine whether areas of the building may have been contaminated. If illnesses are identified in other laboratory staff working with high-risk pathogens, the OHRA Team should be consulted to determine further action. If no illnesses are identified, the division directors will remind all employees to report onset of unexplained symptoms that are compatible with infection by the suspect pathogen(s).
 - v. If inpatient treatment is needed, the BLS Director or a physician OHRA Team member will communicate directly with the physician managing the employee's care to describe the employee's occupational activities and lack of any recognized occupational exposures, and to exchange contact information for future communications as needed.

L. COMPLIANCE MONITORING: The BLS Director is responsible for ensuring compliance with this SOP. Compliance will be assessed by review of reports and records described herein.

M. RECORD RETENTION

Record	Retention
Laboratory incident/problem logs	3 years
SAT Program forms	3 years
Occupational Health Provider Report Form, SA004-01-11	Indefinite
Symptoms Monitoring Log, SA004-02-11	Indefinite
EOHHS Industrial Accident Report packet	Indefinite

N. REFERENCES

Department of Health and Human Services, (CDC), 42 Part 73, Possession, Use, and Transfer of Select Agents and Toxins; Final Rule (effective 4/18/2005).
Occupational Safety and Health Administration, (OSHA) 29 CFR Part 1910.1030 Bloodborne Pathogens and Potentially Infectious Materials
US Department of Health and Human Services/CDC and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories, 5 th ed. Washington, D.C.; U. S. Department of Health and Human Services, Public Health Service, CDC and NIH, 2007
Occupational Safety and Health Administration, (OSHA) 29 CFR Part 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories
Occupational Safety and Health Administration, (OSHA) 29 CFR Part 1910.1200, Hazard Communication
NIH Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines), April 2002. The NIH Guidelines are available at http://www.cdc.gov/od/sap
CDC Health and Safety Manuals, Centers for Disease Control and Prevention, 2001, OhASIS HOME/ Biosafety Information
Laboratory Security And Emergency Response Guidance For Laboratories Working With Select Agents; Centers for Disease Control and Prevention. 12/6/02. MMWR 51:RR-19, 1-6.

O. ATTACHMENTS

1. Medical Alert Cards
2. Occupational Health Provider Report Form, SA004-01-11
3. Medical Emergency and Workplace Injury section, Emergency Response Guidelines, UMMS Jamaica Plain
4. Questionnaire for Assessment of Employee Exposure Risk
5. Symptoms Monitoring Log, SA004-02-11
6. High Risk Pathogen Table (symptoms, incubation periods, person-to-person transmission)

ATTACHMENT-1 Medical Alert Cards

Employee Name	Allergies
Primary Supervisor	Phone numbers
Secondary Supervisor	Phone numbers

24/7 DPH Lab Emergency Contact: (617) 590-6390

Employee Name	Allergies
Primary Supervisor	Phone numbers
Secondary Supervisor	Phone numbers

24/7 DPH Lab Emergency Contact: (617) 590-6390

Employee Name	Allergies
Primary Supervisor	Phone numbers
Secondary Supervisor	Phone numbers

24/7 DPH Lab Emergency Contact: (617) 590-6390

Employee Name	Allergies
Primary Supervisor	Phone numbers
Secondary Supervisor	Phone numbers

24/7 DPH Lab Emergency Contact: (617) 590-6390

MEDICAL ALERT

ATTENDING PHYSICIANS: The holder of this card works at the Massachusetts Department of Public Health (DPH) State Laboratory (www.mass.gov/dph/bls), in areas where hazardous biological agents may be used. In the event of an unexplained illness, please contact the persons listed on the reverse side for information on specific agents to which this individual may have been exposed. Agents may include: Clostridium botulinum and botulinum toxin, Coxiella burnetii, Francisella tularensis, Yersinia pestis, Bacillus anthracis, Brucella species, Burkholderia species, and ricin toxin.

MEDICAL ALERT

ATTENDING PHYSICIANS: The holder of this card works at the Massachusetts Department of Public Health (DPH) State Laboratory (www.mass.gov/dph/bls), in areas where hazardous biological agents may be used. In the event of an unexplained illness, please contact the persons listed on the reverse side for information on specific agents to which this individual may have been exposed. Agents may include: Eastern equine encephalitis virus, West Nile virus, St Louis encephalitis virus, smallpox virus

MEDICAL ALERT

ATTENDING PHYSICIANS: The holder of this card works at the Massachusetts Department of Public Health (DPH) State Laboratory (www.mass.gov/dph/bls), in areas where hazardous biological agents may be used. In the event of an unexplained illness, please contact the persons listed on the reverse side for information on specific agents to which this individual may have been exposed. Agents may include: Mycobacterium tuberculosis

MEDICAL ALERT

ATTENDING PHYSICIANS: The holder of this card works at the Massachusetts Department of Public Health (DPH) State Laboratory (www.mass.gov/dph/bls), in areas where hazardous biological agents may be used. In the event of an unexplained illness, please contact the persons listed on the reverse side for information on specific agents to which this individual may have been exposed. Agents may include: saxitoxin

ATTACHMENT-1 Medical Alert Cards

Employee Name	Allergies
Primary Supervisor	Phone numbers
Secondary Supervisor	Phone numbers

24/7 DPH Lab Emergency Contact: (617) 590-6390

Employee Name	Allergies
Primary Supervisor	Phone numbers
Secondary Supervisor	Phone numbers

24/7 DPH Lab Emergency Contact: (617) 590-6390

MEDICAL ALERT

ATTENDING PHYSICIANS: The holder of this card works at the Massachusetts Department of Public Health (DPH) State Laboratory (www.mass.gov/dph/bls), in areas where hazardous biological agents may be used. In the event of an unexplained illness, please contact the persons listed on the reverse side for information on specific agents to which this individual may have been exposed. Agents may include: rabies virus, West Nile virus, eastern equine encephalitis virus

MEDICAL ALERT

ATTENDING PHYSICIANS: The holder of this card works at the Massachusetts Department of Public Health (DPH) State Laboratory (www.mass.gov/dph/bls), in areas where hazardous biological agents may be used. In the event of an unexplained illness, please contact the persons listed on the reverse side for information on specific agents or materials to which this individual may have been exposed. Agents or materials may include:

OCCUPATIONAL HEALTH PROVIDER REPORT FORM

Massachusetts Department of Public Health
Bureau of Laboratory Sciences
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130-3597
Phone (617) 983-6200

OCCUPATIONAL HEALTH PROVIDER	PATIENT/EMPLOYEE INFORMATION
Physician:	Last Name, first, Name, MI:
Facility:	Address:
Address:	Phone #:
Phone #:	Date of assessment:
Date of workplace exposure/incident:	

Complete the following, but do not reveal specific findings of diagnoses unrelated to occupational exposure	
A. History of present exposure/incident:	
B. Findings/results of the medical examination and any associated test results or tests ordered:	
C. Recommendation for further medical follow-up:	
D. Any medical condition which may be revealed in the course of the assessment which may place the employee at increased risk as a result of exposure to infectious or chemical agents found in the workplace.	
<input type="checkbox"/>	Check box if employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment

Physician Signature

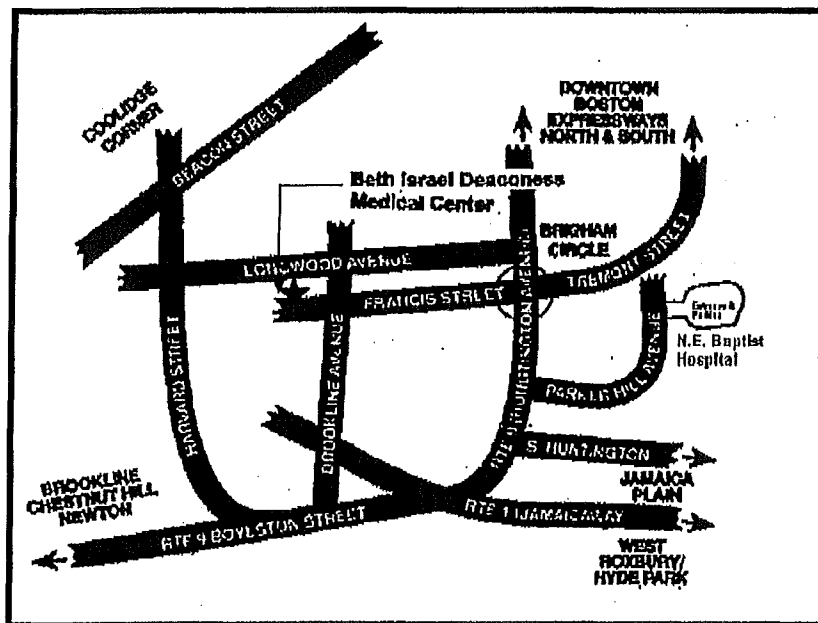
Date

PLEASE FAX COMPLETED FORM TO MDPH STATE LABORATORY SECURE FAX (617) 983-6211

ATTACHMENT-2
SA004-01-11

ATTACHMENT-3 Medical Emergency And Workplace Injury Section, Emergency Response Guidelines,
University of Massachusetts Medical School, Jamaica Plain Campus

**Medical Emergency and Work Place Injury Procedure
Directions to Occupational Health Providers**



Directions:

New England Baptist Hospital Occupational Medicine Center

Building: Converse 6

125 Parker Hill Avenue Boston, MA 02120

Phone: (617) 754-5620

Take the Jamaica Way (Route 1) north toward Boston. Take the Route 9 East exit, take a right at the end of the exit onto Huntington Avenue. Continue on Huntington Avenue to the 2nd set of lights. At the 2nd set of lights take a right onto Parker Hill Avenue. Follow Parker Hill Avenue up to the main entrance on the right. Proceed to the front entrance. Once inside, ask the receptionist located at the desk in the front lobby for directions to the Occupational Medicine Center in the Converse Building on the 6th floor.

Beth Israel Deaconess Medical Center Emergency Room

109 Francis St., Boston, MA

Phone: (617) 754-2400

Take the Jamaica Way (Route 1) north toward Boston. Continue on the Jamaica Way until you come to Brookline Avenue. Take a right onto Brookline Avenue. Continue on Brookline Avenue, take the first left onto Francis Street and a right onto Pilgrim Road. Short-term parking is available adjacent to the ER.

Medical Emergency and Workplace Injury Procedure

<p>Life-Threatening Emergencies:</p> <ul style="list-style-type: none"> Remove employee away from hazard if safe to do so. Dial 9-911 for an ambulance. Dial x5911 to notify front desk of the injured employee's location. Administer first aid/CPR if you are trained, or keep employee comfortable until assistance arrives. Notify employee's supervisor of incident details. Notify Environmental Health and Safety at x6207, or cell: (508) 340-7169; pager: (617) 675-1896. Supervisor must submit incident report and initiate an accident investigation within 24 hours. 	<p>Non Life-Threatening Injuries/Exposures (Work-Related):</p> <ul style="list-style-type: none"> Move employee away from hazard if safe to do so. Provide basic assistance (see below). <div style="text-align: center;"> ↓ ↓ ↓ ↓ ↓ ↓ ↓ </div>
<p><u>Injury/Sudden Cardiac Arrest: keep employee comfortable, administer first aid/CPR/AED if you are trained.</u></p> <p><u>Chemical/biological agents: remove contaminated clothing; wash exposed area for 15 minutes. For chemical incidents, send a co-worker to obtain the chemical material safety data sheet, Room 202A, second floor, SLI.</u></p> <p>Obtain guidance from occupational health provider—check the time of the incident to determine provider availability:</p> <div style="text-align: center;"> ↓ ↓ </div>	
<p style="text-align: center;">Monday–Friday, 8 am–4 pm</p> <p>Call the NE Baptist Hospital Occupational Health Department at (617) 754-5620, 125 Parker Hill Avenue, Boston. Report the details of the incident; follow medical instructions provided by NE Baptist Hospital.</p> <div style="text-align: center;">↓</div> <p>If medical care is indicated by NE Baptist, call Independent Taxi (617) 426-8276 and request cab to: State Laboratory Institute, 305 South Street, Jamaica Plain. Describe building (Tower, Stable, Biologics) for employee pick-up. Taxi vouchers are available at the front desk of the Tower Building</p> <div style="text-align: center;">↓</div> <p>Notify the in-house HELP phone at x5911 of the cab arrival location (Tower, Stables, Biologics).</p> <div style="text-align: center;">↓</div> <p>Send employee to NE Baptist Hospital. For chemical exposures, provide chemical material safety data sheet with injured employee or fax to NE Baptist at: fax: (617) 754-6453; phone: (617) 754-5620.</p> <div style="text-align: center;">↓</div>	<p style="text-align: center;">Monday–Friday, 4 pm–8 am, weekends, holidays</p> <p>Call Independent Taxi at (617) 426-8276, request a cab to: State Laboratory Institute, 305 South Street, Jamaica Plain. Describe building (Tower, Stable, Biologics) for employee pick-up. Request cab to go to the emergency room at Beth Israel Deaconess Medical Center, 109 Francis Street, Boston, MA 02215; (617) 754-2400</p> <div style="text-align: center;">↓</div> <p>Obtain a cab voucher from watchman on duty at front desk of Tower; notify watchman of cab arrival location (Tower, Stables, Biologics).</p> <div style="text-align: center;">↓</div> <p>For chemical exposures, provide chemical material safety data sheet with injured employee or fax to Beth Israel at: fax: (617) 754-2499; phone: (617) 754-2400.</p> <div style="text-align: center;"> ↓ ↓ ↓ ↓ ↓ ↓ </div>
<p>Notify the employee's supervisor of the incident. Supervisor must: 1) Complete incident report paperwork within 24 hours to worker's compensation claims manager (human resources administrator), and 2) initiate an accident investigation within 24 hours.</p>	

Medical Emergency and Workplace Injury

ATTACHMENT-4 Questions for Assessment of Employee Exposure Risk

I. General	
What is your primary job duty in the laboratory?	
How many years of experience do you have working in a microbiology lab?	
How many hours per week do you work in this lab?	
Are you currently employed in a different laboratory?	
II. Employee Risk Factors (questions to be administered by occupational health provider)	
What medical conditions do you have?	
What medications are you currently taking?	
Are currently receiving chemotherapy or radiation therapy?	
Are you pregnant? What is your due date? Breastfeeding?	
What vaccinations have you received?	
Have you lived or traveled outside the United States within the past year?	
Have you eaten or drunk unpasteurized dairy products (e.g. milk, cheese) in the past?	
III. A. Exposure Assessment - Biological	
Which date(s) were you in the room when the biological agent was opened and/or manipulated?	
Body location of exposure? (e.g., skin, face, ear, eye, mouth, lung)	
Describe how you were exposed (e.g., splash, inhalation, cut, abrasion, puncture)	
What PPE were you wearing at the time of the exposure?	
What were you doing when the biological agent was opened and/or manipulated?	
How close were you to the biological agent when it was being worked with in the laboratory?	
Describe the state of the infectious material to which you were exposed? (e.g., primary patient specimen, primary culture, subculture, stock culture, pure, diluted, etc.)	
Is there reason to suspect that the infectivity of material was reduced? (e.g. exposure to liquid culture that has been partially autoclaved or stored under adverse temperature conditions, or decontamination with bleach, phenolic or other liquid disinfectant)	
In the event of a spill:	
How close were you to the spill?	
Over what distance did the infectious material fall?	
What fell? What volume? Solid or liquid? Concentrated or diluted?	
How long was the aerosol allowed to settle?	
What product was used for decontamination?	
Did you do any of the following:	
Look at the open plate with agent for any period of time?	
Pick colonies of the agent off of an open plate?	
Streak colonies of the agent onto a plate? Was there roughness to the surface of the plate?	
Suspend colonies in liquid?	
Prepare a slide with the agent?	
Sniff any of the agent plates to assist with identification?	
Centrifuge, vortex or prepare the agent culture?	
Did you have any of the culture preparation spray into your eyes, nose, and/or mouth?	
Otherwise work with the agent cultures yourself?	
Accidentally touch your skin or otherwise inoculate yourself while working with the agent culture?	
Was the procedure being performed in a biosafety cabinet?	
In a BSL3 laboratory?	
What first-aid interventions did you perform (i.e, flush eyes, rinse wound, etc.)?	

ATTACHMENT-4 Questionnaire For Assessment Of Employee Exposure Risk

III. B. Exposure Assessment - Chemical			
Which date(s) were you in the room when the chemical agent was opened and/or manipulated?			
Body location of exposure? (e.g., skin, face, ear, eye, mouth, lung)			
Describe how you were exposed (e.g., splash, inhalation, cut, abrasion, puncture)			
What PPE were you wearing at the time of the exposure?			
What were you doing when the chemical was opened and/or manipulated?			
How close were you to the chemical when it was being worked with in the laboratory?			
Describe the state of the chemical to which you were exposed? (e.g., primary specimen, pure, diluted, etc.)			
Is there reason to suspect that the exposure to material was reduced? (treated with chemical neutralizer)			
In the event of a spill:			
How close were you to the spill?			
Over what distance did the chemical material fall?			
What fell?	What volume?	Solid or liquid?	Concentrated or diluted?
How long was the aerosol allowed to settle?			
What product was used for decontamination?			
Did you do any of the following:			
Look at the open chemical for any period of time?			
Manipulate the chemical?			
Inhale the chemical?			
Centrifuge, vortex or prepare the chemical?			
Did you have any of the chemical spray into your eyes, nose, and/or mouth?			
Otherwise work with the chemical yourself?			
Accidentally touch your skin or otherwise inoculate yourself while working with the chemical?			
Was the procedure being performed in a chemical safety cabinet?			
What first-aid interventions did you perform (i.e, flush eyes, site of exposure, rinse wound, etc.)?			

SYMPTOMS MONITORING LOG
Massachusetts Department of Public Health
Bureau of Laboratory Sciences
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130-3597
Phone (617) 983-6200

Employee name:	Supervisor and phone number(s):
Occupational health provider name and phone number(s):	
Criteria for contacting your supervisor, occupational health provider, or private physician:	
Suspected agent(s):	Date(s) of exposure:

DATE	___/___/___	___/___/___	___/___/___	___/___/___	___/___/___	___/___/___	___/___/___
Medications taken today (including aspirin, Tylenol, steroids, etc)	Y N _____ _____ _____	Y N _____ _____ _____	Y N _____ _____ _____	Y N _____ _____ _____	Y N _____ _____ _____	Y N _____ _____ _____	Y N _____ _____ _____
Temperature	_____°F	_____°F	_____°F	_____°F	_____°F	_____°F	_____°F
Chills	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Malaise*	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Sweats	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Headache	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Joint pain	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Low back Pain	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Fatigue	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Appetite Loss	Y N	Y N	Y N	Y N	Y N	Y N	Y N
Other Symptoms/ Comments							

*"Malaise" is described as: general feeling of being unwell, tired, fatigued, low appetite, &/or lack of energy.

ATTACHMENT-5
SA004-02-11

ATTACHMENT-6

High Risk Pathogen Table (Symptoms, Incubation Periods, Person-To-Person Transmission)

All information in this table was obtained from www.cdc.gov.

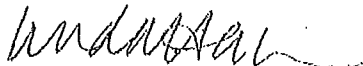
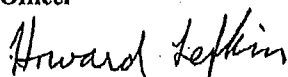
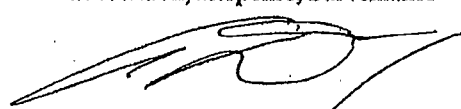
Page 1 of	Symptoms	Incubation period	Person-to-person transmission
Bacillus anthracis	Cutaneous: a small sore that develops into a blister. The blister then develops into a skin ulcer with a black area in the center. The sore, blister and ulcer do not hurt. Gastrointestinal: nausea, loss of appetite, bloody diarrhea, and fever, followed by bad stomach pain. Inhalation: cold or flu symptoms and can include a sore throat, mild fever and muscle aches. Later symptoms include cough, chest discomfort, shortness of breath, tiredness and muscle aches.	Within 7 days of coming in contact with the bacterium for all three types of anthrax. For inhalation anthrax, symptoms can appear within a week or can take up to 42 days to appear.	none
Brucella species	Acutely: fever, chills, headache, low back pain, joint pain, malaise, occasionally diarrhea Sub-acutely: malaise, muscle pain, headache, neck pain, fever, sweats Chronically: anorexia, weight loss, abdominal pain, joint pain, headache, backache, weakness, irritability, insomnia, depression, constipation.	<8 weeks for acute symptoms; >1 year for chronic symptoms	rare
Burkholderia species	Localized infection: ulcer, nodule, skin abscess, fever, general muscle aches. Lung infection: bronchitis, pneumonia, high fever, headache, loss of appetite, muscle soreness, chest pain, cough. Disseminated infection: fever, headache, respiratory distress, abdominal discomfort, weight loss, chest pain, muscle or joint pain, seizure, disorientation, abscesses may be found throughout the body, most notably in the liver, spleen, or prostate.	1 day to many years; generally symptoms appear 2-4 weeks after exposure.	rare
Clostridium botulinum	Double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness that moves down the body, usually affecting the shoulders first, then the upper arms, lower arms, thighs, calves, paralysis of breathing muscles.	Foodborne botulism: 6 hours to 10 days (most commonly 12 to 36 hours) after eating food that contains the toxin. Could be shorter in inhalational botulism.	none
Coxiella burnetii	High fevers (up to 104-105° F), severe headache, general malaise, myalgia, confusion, sore throat, chills, sweats, non-productive cough, nausea, vomiting, diarrhea, abdominal pain, and chest pain, weight loss, pneumonia, hepatitis. Chronic complications: endocarditis, cardiac valvular disease.	2-3 weeks post exposure. Chronic symptoms may develop 1-20 years after infection.	rare
Eastern Equine Encephalitis virus	Sudden onset of headache, high fever, chills, vomiting, disorientation, seizures, coma.	4 to 10 days after the bite of an infected mosquito	none

ATTACHMENT-6

High Risk Pathogen Table (Symptoms, Incubation Periods, Person-To-Person Transmission)

Page 2 of 2	Symptoms	Incubation period	Person-to-person transmission
Francisella tularensis	Sudden fever, chills, headaches, diarrhea, muscle aches, joint pain, dry cough, progressive weakness, pneumonia, chest pain, bloody sputum, shortness of breath, ulcers on the skin or mouth, swollen and painful lymph glands, swollen and painful eyes, sore throat.	Symptoms usually appear 3 to 5 days after exposure to the bacteria, but can take as long as 14 days.	none
Mycobacterium tuberculosis	Cough that lasts 3 weeks or longer, chest pain, coughing up blood or sputum, weakness or fatigue, weight loss, loss of appetite, chills, fever, night sweats	Weeks to years	Yes, especially when exposed to infected person with respiratory symptoms
Rabies virus	General weakness or discomfort, fever, headache, discomfort or a prickling or itching sensation at the site of bite, anxiety, confusion, agitation, delirium, abnormal behavior, hallucinations, insomnia.	Weeks to months	Bite and non-bite exposures inflicted by infected humans could theoretically transmit rabies, but no such cases have been documented. Animal to human transmission.
Ricin toxin	Inhalation: difficulty breathing, fever, cough, nausea, chest tightness, heavy sweating, blue skin Ingestion: vomiting, diarrhea, bloody diarrhea, dehydration, hallucinations, seizures, blood in the urine Skin and eye exposure: redness and pain of the skin and the eyes.	Within 6-8 hours of exposure; death could occur within 36-72 hours	none
Saxitoxin	Numbness of the oral mucosa, parasthesias, a floating sensation, muscle weakness, vertigo, cranial nerve dysfunction, paralysis, respiratory failure.	Within 30 minutes of ingestion	none
Smallpox virus	High fever, head and body aches, sometimes vomiting. A rash follows that spreads and progresses to raised bumps and pus-filled blisters that crust, scab, and fall off after about three weeks, leaving a pitted scar.	7-17 days	Direct and fairly prolonged face-to-face contact is required to spread smallpox from one person to another.
Yersinia pestis	Swollen and very tender lymph gland, accompanied by pain, fever, chills, headache, extreme exhaustion, cough, breathing difficulty, bloody sputum, nausea, vomiting, abdominal pain	Usually 2-6 days after exposure	Yes, especially when exposed to infected person with respiratory symptoms

P. APPROVAL SIGNATURES

Type of action	If procedure is revised: section, page number of revision and effective date	Approval signatures, date
<input type="checkbox"/> New	Replace and revise entire content of Version 1 revision 6/2008.	MDPH Director, Bureau of Laboratory Sciences and SAT Program Responsible Official  Linda Han, MD, MPH
<input type="checkbox"/> Periodic Review	Version 2 Effective date 4/1/2011.	
<input type="checkbox"/> Revision, minor		
<input checked="" type="checkbox"/> Revision, major version# <u>2</u>		UMMS Environmental Health and Safety Officer  Howard Lefkin Medical Director, Bureau of Infectious Disease Prevention, Response, Surveillance  Alfred DeMaria, Jr., MD

Q. REVISION HISTORY

Revision Level	Document Section	Changes Made to Document Section
Version 1		Version 1. Document entitled, "SOP SA.004 Health and Safety Surveillance Guidelines for Select Agents". Effective date 6/17/2003. This document was created as a health and safety guide specific to each select agent and toxin used, stored, and transferred at this facility.
Version 1, revision	Entire document	Version 1 revised 6/2008. Document entitled, "SOP SA.004 Health, Safety and Medical Surveillance Guidelines for Select Agents". This document was updated to incorporate Medical Health Surveillance (an addendum to SOP SA.004 Version 1) incorporating recent changes in the CDC/NIH Biosafety in Microbiological and Biomedical Laboratories, 5 th Edition, 2007.
Version 2	Entire document	Version 2 effective 4/18/2011. Document entitled, "SOP SA.004 Medical Surveillance and Occupational Health Plan". Complete replacement of content to reflect requirements and practices applicable to the MDPH BLS Laboratories.